

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A method of forming a washing machine, comprising:
attaching a bearing housing to a rear wall of a tub of the washing machine by injection molding the rear wall of the tub around the bearing housing;
attaching a stator to the rear wall of the tub;
inserting a shaft through the bearing housing; ~~and~~
attaching a rotor to a first end of the shaft;
attaching a bearing bracket to the exterior of the tub such that the bearing bracket covers the rotor;
mounting a rear bearing in the bearing bracket; and
mounting the first end of the shaft in the rear bearing such that the stator and rotor are positioned between the rear bearing and the rear wall of the tub.
2. (Original) The method of claim 1, further comprising mounting at least one bearing inside the bearing housing, wherein the step of inserting a shaft through the bearing housing comprises mounting the shaft on the at least one bearing.

3. (Original) The method of claim 1, further comprising:
rotatably mounting a drum within the tub of the washing machine; and
attaching the drum to a second end of the shaft.
4. (Original) The method of claim 1, wherein the step of attaching a rotor to a first end of the shaft comprises:
attaching the rotor to a connector; and
attaching the connector to the first end of the shaft.
5. (Original) The method of claim 4, wherein the step of attaching the connector to the first end of the shaft comprises:
sliding a cylindrical portion of the connector over the first end of the shaft such that ridges and grooves on the cylindrical portion of the connector mate with corresponding ridges and grooves on the first end of the shaft to ensure that the connector and the shaft are rotatably fixed with respect to each other; and
fastening the connector to the shaft with a fastener such that the connector and the shaft are axially fixed with respect to each other.
6. (Original) The method of claim 4, wherein the step of attaching the rotor to the connector comprises fastening the rotor to the connector with a plurality of fasteners.

7. (Original) The method of claim 6, wherein the step of attaching the rotor to the connector further comprises inserting pins that protrude from the connector into corresponding apertures in the rotor.

8. (Original) The method of claim 1, further comprising the step of bending portions of a rear wall of the rotor inward to form apertures in the rear wall, and to form cooling fins on the rotor.

9-11. (Canceled).

12. (Currently Amended) The method of ~~claim 11~~ claim 4, wherein the step of attaching the connector to the first end of the shaft comprises sliding a cylindrical portion of the connector over the first end of the shaft such that ridges and grooves on the cylindrical portion of the connector mate with corresponding ridges and grooves on the first end of the shaft to ensure that the connector and the shaft are rotatably fixed with respect to each other, and wherein the step of mounting the first end of the shaft in the rear bearing comprises:

sliding the first end of the shaft through the rear bearing; and

fastening the rear bearing to the shaft with a fastener such that the rear bearing and the shaft are axially fixed with respect to each other.

13. (Original) The method of claim 12, wherein the step of fastening the rear bearing to the shaft also causes the connector and the shaft to be axially fixed with respect to each other.

14-15. (Canceled).

16. (Original) A method of forming a washing machine, comprising:
attaching a bearing housing to a rear wall of a tub of the washing machine;
attaching a stator to the rear wall of the tub;
inserting a shaft through the bearing housing;
attaching a rotor to a first end of the shaft;
attaching a bearing bracket to the rear wall of the tub such that the bearing bracket covers the rotor;
mounting a rear bearing in the bearing bracket; and
mounting the first end of the shaft in the rear bearing such that the stator and rotor are positioned between the rear bearing and the rear wall of the tub.

17. (Original) The method of claim 16, further comprising mounting a front bearing in the bearing housing, and wherein the step of inserting the shaft through the bearing housing also comprises mounting the shaft on the front bearing.

18. (Original) The method of claim 16, wherein the step of attaching a rotor to a first end of the shaft comprises:

attaching the rotor to a connector;

sliding a cylindrical portion of the connector over the first end of the shaft such that ridges and grooves on the cylindrical portion of the connector mate with corresponding ridges and grooves on the first end of the shaft to ensure that the connector and the shaft are rotatably fixed with respect to each other, and

fastening the rear bearing and the connector to the shaft with a fastener such that the rear bearing, the connector and the shaft are all axially fixed with respect to each other.

19. (Original) The method of claim 16, further comprising the step of bending portions of a rear wall of the rotor inward to form apertures in the rear wall, and to form cooling fins on the rotor.

20. (Original) The method of claim 16, wherein the step of attaching a bearing housing to a rear wall of a tub comprises injection molding the rear wall of the tub around the bearing housing.

21. (New) A method of forming a washing machine, comprising:

attaching a bearing housing to a rear wall of a tub of the washing machine;

attaching a stator to the rear wall of the tub;
inserting a shaft through the bearing housing;
fastening a rotor to a separable connector; and
fastening the connector to a first end of the shaft.

22. (New) The method of claim 21, wherein the rotor is fastened to the connector by a plurality of fasteners.

23. (New) The method of claim 21, wherein the step of fastening a rotor to a separable connector comprises fastening the rotor to a connector made of an electrically insulating material such that the rotor is electrically insulated from the shaft.

24. (New) The method of claim 21, wherein the rotor includes a plurality of positioning holes, and wherein the connector includes a plurality of positioning pins, and wherein the step of fastening the rotor to the connector comprises sliding the positioning pins in the connector into the positioning holes in the rotor.

25. (New) The method of claim 24, wherein the step of fastening the rotor to the connector further comprises attaching the rotor to the connector with a plurality of fasteners.

26. (New) The method of claim 25, wherein the step of attaching the rotor to the connector with a plurality of fasteners comprises inserting the fasteners through fastening holes in the connector and into threaded fastening holes in the rotor.

27. (New) The method of claim 26, wherein the threaded fastening holes in the rotor have a diameter that is smaller than a diameter of the positioning pins such that the positioning pins on the connector cannot be inserted into the threaded fastening holes on the rotor.

28. (New) A method of forming a washing machine, comprising:
attaching a bearing housing to a rear wall of a tub of the washing machine;
attaching a stator to the rear wall of the tub;
inserting a shaft through the bearing housing;
forming a rotor having a circular rear wall and a cylindrical sidewall integrally formed of steel, and having a plurality of magnets mounted on the sidewall; and
fastening the rotor to the shaft.

29. (New) A method of forming a washing machine, comprising:
forming a tub of plastic wherein the tub includes a rear wall with reinforcing ribs and an integrally molded sidewall;

mounting a rigid supporter to the rear wall of the tub, wherein the supporter has a shape that closely conforms to the shape of the reinforcing ribs on the rear wall of the tub; and
attaching a motor to the rear wall of the tub and to the supporter.

30. (New) The method of claim 29, further comprising mounting a bearing housing in the rear wall of the tub such that a rear portion of the bearing housing projects from the rear wall of the tub.

31. (New) The method of claim 30, wherein the step of mounting the supporter to the rear wall of the tub comprises mounting the supporter such that an aperture in the center of the supporter abuts and supports the protruding portion of the bearing housing to help maintain a concentric relationship between the bearing housing and the motor.

32. (New) A method of forming a washing machine, comprising:
forming a tub of plastic wherein the tub includes a rear wall and an integrally molded sidewall;
mounting a bearing housing in the rear wall of the tub such that a rear portion of the bearing housing projects from the rear wall of the tub;
mounting a rigid supporter to the rear wall of the tub such that an aperture in the center of the supporter abuts and supports the protruding portion of the bearing housing; and

attaching a motor to the rear wall of the tub and to the supporter such that the supporter helps to maintain a concentric relationship between the bearing housing and the motor.

33. (New) A method of forming a washing machine, comprising:
attaching a bearing housing to a rear wall of a tub of the washing machine;
attaching a stator to the rear wall of the tub;
inserting a shaft through the bearing housing;
forming a rotor having a circular rear wall and a cylindrical sidewall integrally formed of steel, and having a plurality of embossings formed in the rear wall to reinforce the rotor; and
fastening the rotor to the shaft.

34. (New) A method of forming a washing machine, comprising:
attaching a bearing housing to a rear wall of a tub of the washing machine;
attaching a stator to the rear wall of the tub;
inserting a shaft through the bearing housing;
forming a rotor having a circular rear wall and a cylindrical sidewall integrally formed of steel, wherein an outer rim of the rotor is bent to increase a rigidity of the rotor; and
fastening the rotor to the shaft.

35. (New) A method of forming a washing machine, comprising:
attaching a bearing housing to a rear wall of a tub of the washing machine;
attaching a stator to the rear wall of the tub;
inserting a shaft through the bearing housing;
forming a rotor having a circular rear wall and a cylindrical sidewall integrally formed of steel, wherein an inner circumferential edge of the rotor is bent to increase a rigidity of the rotor; and
fastening the rotor to the shaft.

36. (New) A method of forming a washing machine, comprising:
attaching a bearing housing to a rear wall of a tub of the washing machine;
attaching a stator to the rear wall of the tub;
inserting a shaft through the bearing housing;
rigidly attaching a first end of the shaft to a rotating drum located in the tub; and
rigidly attaching a rotor to a second end of the shaft.

37. (New) The method of claim 36, wherein the step of rigidly attaching the rotor to the second end of the shaft comprises:
coupling the rotor to a connector with a plurality of fasteners; and
coupling the connector with the second end of the shaft.

38. (New) The method of claim 37, wherein the step of coupling the rotor to a connector comprises attaching the rotor to an electrically insulating connector such that the rotor is electrically insulated from the shaft.